10/588,391	Amendment		Page 2
------------	-----------	--	--------

## IN THE CLAIMS:

Please amend claims 1, 3-9, and 16-25 as shown in the following complete listing:

- 1. (currently amended) A process for preparing a supported catalyst which comprises:
- a) preparing a hydrogel;
- b) milling the hydrogel to give a finely particulate hydrogel;
- c) producing a slurry comprising the finely particulate hydrogel;
- d) drying the slurry comprising the finely particulate hydrogel thereby forming a support for catalysts;
- e) applying a first treatment compound comprising at least one of a transition metal and transition metal containing compound to the support for catalysts, thereby forming the supported catalyst; and
- f) optionally, activating the supported catalyst, wherein the finely particulate hydrogel comprises:
  - at least 5% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0  $\mu$ m to  $\leq$  3  $\mu$ m; [[and/or]] and
  - at least 40% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0 μm to
    ≤ 12 μm, [[and/or]] and
  - at least 75% by volume of the particles, based on the total volume of the particles, have a particle size in the range from  $> 0 \mu m$  to  $\le 35 \mu m$ .
- 2. (canceled)
- 3. (currently amended) The process for preparing the supported catalyst as claimed in of claim 1, further comprising applying a second treatment compound to the treated support, wherein the second treatment compound comprises at least one of a transition metal and a transition metal containing compound.

- 4. (currently amended) The process for preparing the supported catalyst as claimed in of claim 1, further comprising applying to the support for catalysts at least one complex of a transition metal.
- of claim 1, wherein the supported catalyst is activated by an activation process selected from at least one of thermal activation, oxidation, halogenation and addition of at least one activator compound.
- 6. (currently amended) The process for preparing the supported catalyst as claimed in of claim 1, wherein the first treatment compound comprises chromium or a chromium containing compound, and the supported catalyst is activated by at least one of:
  - a) halogenation,
  - b) thermal activation in an oxidizing, reducing and/or neutral atmosphere, and
  - c) renewed thermal activation in a reducing atmosphere, wherein the thermal activation is carried out in the range from 400°C to 1000°C.
- 7. (currently amended) A supported catalyst prepared by the process of claim 1 a process comprising
  - a) preparing a hydrogel;
  - b) milling the hydrogel to give a finely particulate hydrogel;
  - c) producing a slurry comprising the finely particulate hydrogel;
  - d) drying the slurry comprising the finely particulate hydrogel thereby forming a support for catalysts;
  - e) applying a first treatment compound comprising at least one of a transition metal and transition metal containing compound to the support for catalysts, thereby forming the supported catalyst; and
  - f) optionally, activating the supported catalyst, wherein the finely particulate hydrogel comprises:
    - at least 5% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0 μm to ≤ 3 μm; and/or

10/588,391 . . . . . . . . Amendment . . . . . . . . . . Page 4

- at least 40% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0 μm to ≤ 12 μm, and/or
- at least 75% by volume of the particles, based on the total volume of the particles, have a particle size in the range from  $> 0 \mu m$  to  $\leq 35 \mu m$ .
- 8. (currently amended) The supported catalyst as claimed in of claim 7 further comprising a chromium content, based on the element, is from 0.1% by weight to 5% by weight based on the total weight of the supported catalyst.
- 9. (currently amended) A process comprising which comprises polymerizing and/or copolymerizing olefins with a supported catalyst, wherein the supported catalyst is prepared by the process of claim 1 a process comprising:
  - a) preparing a hydrogel;
  - b) milling the hydrogel to give a finely particulate hydrogel;
    - c) producing a slurry comprising the finely particulate hydrogel;
  - d) drying the slurry comprising the finely particulate hydrogel thereby forming a support for catalysts;
  - e) applying a first treatment compound comprising at least one of a transition metal and transition metal containing compound to the support for catalysts, thereby forming the supported catalyst; and
  - f) optionally, activating the supported catalyst, wherein the finely particulate hydrogel comprises:
    - at least 5% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0 μm to ≤ 3 μm; and/or
    - at least 40% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0 μm to ≤ 12 μm, and/or
  - at least 75% by volume of the particles, based on the total volume of the particles, have a particle size in the range from  $> 0 \mu m$  to  $\leq 35 \mu m$ .

- 10. (previously presented) The process of claim 9 wherein the polymerization and/or copolymerization is carried out in the presence of at least one activator compound.
- 11. (previously presented) The process of claim 10 wherein the activator compound is an organometallic compound.
- 12. (previously presented) The process of claim 9 wherein the polymerization and/or copolymerization is carried out as a gas-phase fluidized-bed process and/or a suspension process.
- 13. (previously presented) The process of claim 12 wherein the polymerization and/or copolymerization in the gas-phase fluidized-bed process and the supported catalyst has a mean particle size of the catalyst particles in the range from 30 μm to 300 μm.
- 14. (previously presented) The process of claim 12 wherein the polymerization and/or copolymerization is carried out in the suspension process and the supported catalyst has a mean particle size of the catalyst particles in the range from 30 μm to 350 μm.
- 15. (previously presented) The process of claim 13 wherein, in a polymerization and/or copolymerization in the gas-phase fluidized-bed process, the proportion of discharged polymer having a particle size in the range from > 0 μm to ≤ 125 μm is < 15% by weight based on the total weight of the product.</p>
- 16. (currently amended) An olefin polymer obtained from polymerizing and/or copolymerizing olefins with a supported catalyst, wherein the supported catalyst is prepared by the process of claim 1 a process comprising:
  - a) preparing a hydrogel;
  - b) milling the hydrogel to give a finely particulate hydrogel;
    - e) producing a slurry comprising the finely particulate hydrogel;
    - d) drying the slurry comprising the finely particulate hydrogel thereby forming a support for catalysts;
  - e) applying a first treatment compound comprising at least one of a transition metal and transition metal containing compound to the support for catalysts, thereby forming the supported catalyst; and
  - f) optionally, activating the supported catalyst,

10/588,391 . . . . . . . . . Amendment . . . . . . . . . . . Page 6

wherein the finely particulate hydrogel comprises:

- at least 5% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0  $\mu$ m to  $\leq$  3  $\mu$ m; and/or
- at least 40% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0 μm to ≤ 12 μm, and/or
- at least 75% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0  $\mu$ m to  $\leq$  35  $\mu$ m.
- 17. (currently amended) A fiber, film or molding comprising polymers obtained from polymerizing and/or copolymerizing olefins with a supported catalyst, wherein the supported catalyst is prepared by the process of claim 1 a process comprising:
  - a) preparing a hydrogel;
  - b) milling the hydrogel to give a finely particulate hydrogel;
    - c) producing a slurry comprising the finely particulate hydrogel;
    - d) drying the slurry comprising the finely particulate hydrogel thereby forming a support for catalysts;
  - e) applying a first treatment compound comprising at least one of a transition metal and transition metal containing compound to the support for catalysts, thereby forming the supported catalyst; and
  - f) optionally, activating the supported catalyst, wherein the finely particulate hydrogel comprises:
    - at least 5% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0 μm to ≤ 3 μm; and/or
    - at least 40% by volume of the particles, based on the total volume of the particles, have a particle size in the range from > 0 μm to ≤ 12 μm, and/or
  - at least 75% by volume of the particles, based on the total volume of the particles, have a particle size in the range from  $> 0 \mu m$  to  $\leq 35 \mu m$ .

- 18. (currently amended) The process according to claim 2 of claim 1 wherein the transition metals are selected from the group consisting of Ti, Zr, Cr, Fe, Ni, and Pd.
- 19. (currently amended) The process according to of claim 3 wherein the transition metals are selected from the group consisting of Ti, Zr, Hf, V, Cr, Fe, Co, Ni, Zn and Pd.
- 20. (currently amended) The process according to of claim 4 wherein the at least one complex of a transition metal is a metallocene compound.
- 21. (currently amended) The process according to of claim 20 wherein the metallocene compound comprises a transition metal selected from the group consisting of Ti, Zr, Hf, V, Cr, Fe, Co, Ni, Zn and Pd.
- 22. (currently amended) The process according to of claim 5 wherein the thermal activation is calcination.
- 23. (currently amended) The process according to of claim 5 wherein the halogenation is fluorination.
- 24. (currently amended) The process according to of claim 6 where the thermal activation is carried out in the range from 450°C to 900°C.
- 25. (currently amended) The supported catalyst according to of claim 8 wherein the chromium content is from 0.2% by weight to 1.5% by weight.
- 26. (previously presented) The process of claim 11 wherein the organometallic compound comprises a metal selected from the group consisting of B, Al, Zn and Si.
- 27. (previously presented) The process of claim 13 wherein the mean particle size of the catalyst particles are in the range from 40 μm to 100 μm.
- 28. (previously presented) The process of claim 14 wherein the mean particle size of the catalyst particles are in the range from 40 μm to 100 μm.
- 29. (previously presented) The process of claim 15 wherein the proportion of discharged polymer having a particle size in the range from > 0 μm to ≤ 125 μm is ≤ 5% by weight.

- 30. (previously presented) The process of claim 29 wherein the proportion of discharged polymer having a particle size in the range from  $> 0 \mu m$  to  $\le 125 \mu m$  is  $\le 3\%$  by weight.
- 31. (previously presented) The process of claim 30 wherein the proportion of discharged polymer having a particle size in the range from  $> 0 \mu m$  to  $\leq 125 \mu m$  is from 0.3% by weight to 2% by weight.